

A NEW SPECIES OF AUSTRALIAN *CANTHYDRUS* SHARP WITH A KEY TO THE AUSTRALIAN SPECIES OF NOTERIDAE (COLEOPTERA)

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A new species of *Canthydrus*, *C. ephemeralis* sp. nov., from Northern Australia is described and figured. It is distinguished from the other known Australian *Canthydrus*, *C. bovillae* Blackburn, 1889, by size and dorsal colour pattern as well as a number of structural characters. A key to the genera and species of Australian Noteridae is included.

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Australia has a limited fauna of aquatic beetles of the family Noteridae consisting of only five described species in four genera; *Canthydrus* Sharp, 1882, *Hydrocanthus* Say, 1823, *Neohydrocoptus* Sato, 1972, and *Notomicrus* Sharp, 1882. All are essentially tropical although *Notomicrus tenellus* Clark, 1863 occurs in decreasing numbers down the east coast almost to the Victorian / South Australian border. Although all but *Neohydrocoptus* are extremely streamlined, they do not inhabit running water as their body form might suggest, but are found in still water in swamps, embayments and dams amongst emergent vegetation. All species are common. *Neohydrocoptus subfasciatus* Sharp, 1882, less so than the others. Most of the species fly readily to light.

In this paper I describe a distinctive new *Canthydrus* which is seasonally common in the escarpment country of coastal Northern Territory and adjacent Western Australia. All specimens are from the collection of the South Australian Museum.

SYSTEMATICS

KEY TO THE GENERA AND SPECIES OF AUSTRALIAN NOTERIDAE (AFTER PEDERZANI 1995)

- 1 — Fore tibia expanded beyond base of tarsi and with a strong hooked spur at the outer apical angle 2
- Fore tibia not expanded beyond base of tarsi, with several weak apical spines .. 5
- 2 — Prosternal process not broader than long,

its apex about 2 to 2.5x as wide as its breadth between postcoxae; < 3 mm long *Canthydrus* 3

- Prosternal process broader than long, its apex very broad, at least 2.5 to 3x as wide as its breadth between postcoxae; > 4 mm long *Hydrocanthus* 4

- 3 — Elytron with a pale spot towards apex, as well as a medial one (Fig. 7), metatarsi stout (Fig. 3), metatibial spines of equal length (Fig. 3) .. *C. ephemeralis* sp. nov.

- Elytron without apical pale spot (Fig. 5), metatarsi more elongate (Fig. 1), metatibial spines unequal in length (Fig. 1) *C. bovillae* Blackburn

- 4 — Uniformly reddish; weak to moderately impressed row of punctures adjacent to the suture of the elytron *H. waterhousei* Blackburn

- Uniformly black; lacking sutural row of punctures *H. australasiae* Wehncke

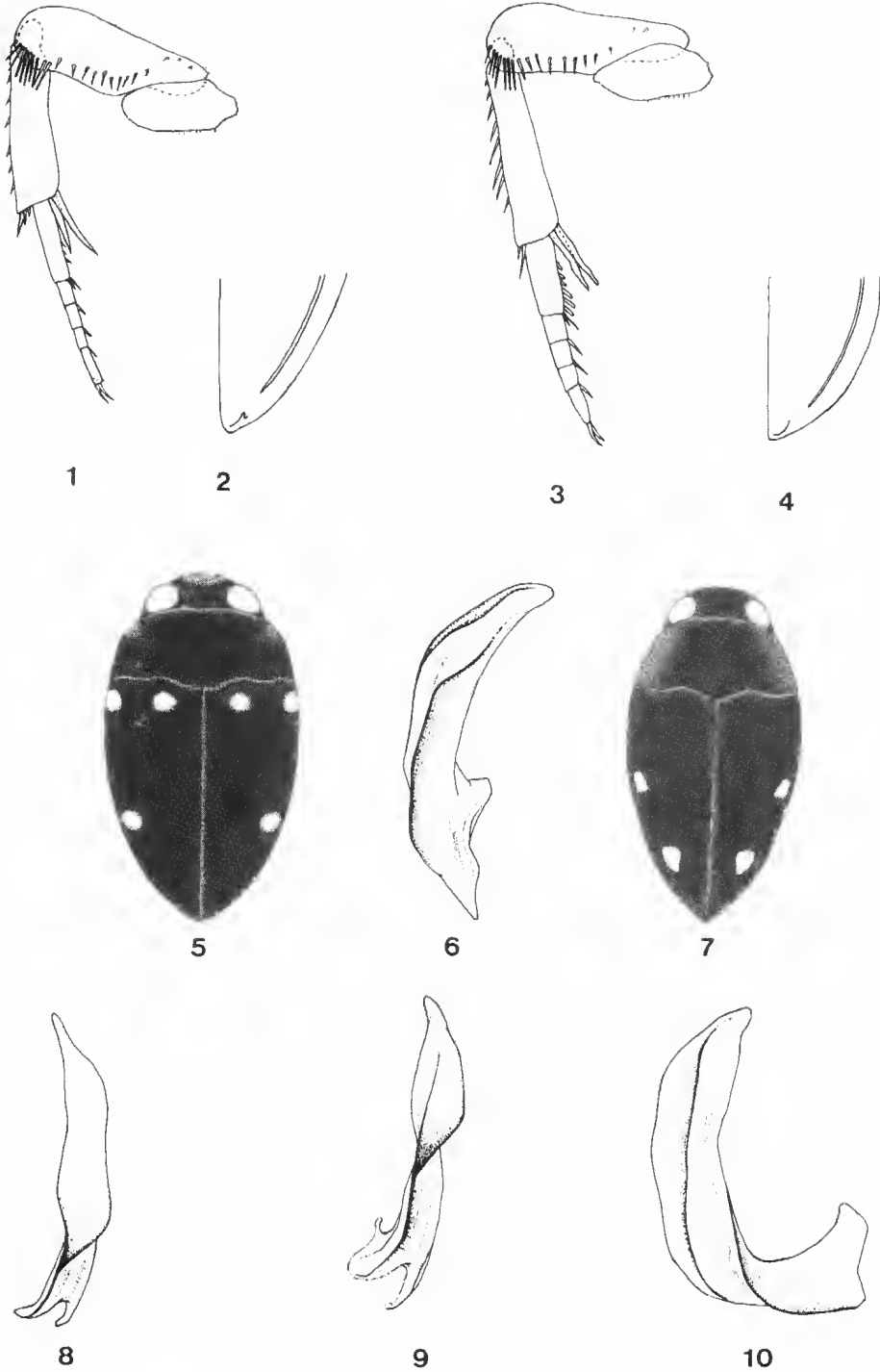
- 5 — Lateral margins of metasternal plate not bordered by a lateral ridge; < 2 mm long *Notomicrus tenellus* Clark

- Lateral margins of metasternal plate with a lateral ridge; > 2 mm long *Neohydrocoptus subfasciatus* Sharp

Canthydrus ephemeralis new species.
(Figs 3, 4, 6, 7, 9)

Types

Holotype: male: 'NT 5 km SE Mt Borradaile stn. 8/10/98 C. Watts'.



FIGURES 1-10. *Canthydrus bovillae*; 1, metaleg; 2, tip of elytron (ventral view); 5, habitus drawing; 8, dorsal view of central lobe of aedeagus; 10, lateral view of central lobe of aedeagus. *Canthydrus ephemeralis*; 3, metaleg; 4, tip of elytron (ventral view); 6, lateral view of central lobe of aedeagus; 7, habitus drawing; 9, dorsal view of central lobe of aedeagus.

Paratypes: 29, 'NT 5 km SE Mt Borradaile strn. 27.5.99 C. Watts'; 14, 'NT Mt Borradaile strn. 26.5.99 C. Watts'; 33, 'NT 1 km W Gubara Kakadu NP 17.3.98 C. H. S. Watts'; 25, 'NT 5 km SE Mt Borradaile strn. 8/10/98 C. Watts'; 2, '6 km SE Mt Borradaile NT 8/10/98 C. Watts'; 5, 'NT 1 km W Gubara 17/3/98 C. H. S. Watts'; 3, 'NT 1 km W Gubara Kakadu NP 29/1/99 C. Watts'; 1, 'Darwin NT 13.5.63 CW'; 23, 'W. AUST. Ck on Phillips Range 16° 53'S, 125° 48'E 4 Oct 1982 B. V. Timms'; 4, 'W. AUST. Dawn Ck 15° 57'S, 126° 51'E 5 Oct 1982 B. V. Timms'. All specimens in the collection of the South Australian Museum, except for 10 from 1 km west of Gubara which have been deposited in the Australian National Insect Collection, Canberra.

Description (number examined, 141)

Habitus. Length, 2.5–2.9 mm long. Elongate oval, deep bodied, moderately acuminate behind; shiny black, labrum and sides of pronotum testaceous, elytron with two yellow/white lateral spots, one in the middle, the other three-quarters the way to the apex (Fig. 7), appendages dark testaceous.

Dorsal surface. Smooth, virtually impunctate except for serial punctures which are traceable but weak, covered with fine reticulation, meshes small, regular, much smaller than eye facet. Head relatively broad, eyes large, antennae relatively short, segments 8 to 10 somewhat thicker, apical segment twice the length of penultimate. Pronotum with thin well-impressed line a little behind anterior margin, weaker towards sides, lateral margin with somewhat more strongly impressed line delineating a distinct heading. Elytron with well-marked lateral flange/heading.

Ventral surface. Smooth, virtually impunctate, covered with fine reticulation similar to dorsal surface. Apical segment of labial palpus large, oval, bifid at tip. Pronotal process wide, flat, strongly setose, lateral margins weakly beaded, approximately parallel-sided, narrower between procoxae, hind angles extended. Elytron epipleura very broad in anterior quarter, then rapidly narrowing, very narrow in apical half, absent near tip; apical ligula a smooth curve (Fig. 4). Raised midsection of meso- and metasterna broad, flat, widening towards rear, hind edge strongly concave, outer hind angle with three to four strong setae, covered with strong setae similar to those on pronotal process. Protibia with strong spine, approximately half length of tibia. Metaleg stout, apical spines on metatibia equal in length (Fig. 3),

Hind margins of ventrites with row of setae, stronger laterally.

Male. External characters as for female. Central lobe of aedeagus with the apical 'overturn' which covers a broad medial groove less than half total length of lobe (Figs 6, 9).

Remarks

Canthyrus ephemeralis is most readily separated from *C. bovillae* Blackburn, 1889 by its smaller size (2.5–2.9 mm long against 2.9–3.4 mm) and dorsal colour pattern. *Canthyrus bovillae*, in general, is less strongly coloured with some specimens nearly completely black (identification from descriptions and specimens identified by Blackburn in the South Australian Museum). Well-coloured specimens (Fig. 5) differ from *C. ephemeralis* (Fig. 7) in having the front of the head testaceous rather than dark; the testaceous areas at the sides of the pronotum are restricted to the front, whereas in *C. ephemeralis* they extend along the whole side; two light-coloured areas at the base of the elytra (often indistinct) are lacking in *C. ephemeralis*; the absence of a subapical spot on the elytron which is present in *C. ephemeralis* (both species have a light coloured lateral spot in about the middle of the elytron). Other differences between the two species are: the shape of the ligula near the apex of the elytra—it has a pronounced indentation in *C. bovillae* (Fig. 2) which is lacking in *C. ephemeralis* (Fig. 4); the hind legs in *C. ephemeralis* (Fig. 3) are more robust than those of *C. bovillae* (Fig. 1); the metatibial spines in *C. ephemeralis* are of equal length (Fig. 3) whereas the inner one is longer in *C. bovillae* (Fig. 1); the meso-metasternal central plate is a bit broader in *C. bovillae*; the central lobe of the aedeagus has the medial groove covered for most of its length (Figs 8, 10) rather than about half as in *C. ephemeralis* (Figs 6, 9).

Distribution

Known only from the localities listed above under *Types*.

Habitat

All the collections of *C. ephemeralis* where the habitat details are known have been from small, temporary, wet-season, low gradient streams flowing off escarpments in the coastal Northern Territory and northern Western Australia. The substrate of these streams is clean sand or rock with accumulations of dead leaves and other debris in places. The adults forage in the open

sandy areas, at times in areas that may have water only after rain and are dry a few hours later. In contrast, *C. bovillae* lives in the more permanent flood-plain billabongs and is not found in the seasonal streams of the escarpment.

Etymology

In reference to its ephemeral appearance in streams that only flow during the wet season.

REFERENCES

- BLACKBURN, T. 1889. Notes on Australian Coleoptera, with descriptions of new species. *Proceedings of the Linnean Society of New South Wales* IV: 445–482.
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